

REMARKS

In the Office Action dated May 12, 2005, the Examiner rejected Claims 1-2 and 11-12 and objected to claims 3-10 and 13-20. Applicants traverse the rejection of claims 1-2 and 11-12. Claims 1-20 are pending after entry of this amendment.

I. Allowable Subject Matter

Applicants gratefully acknowledge that the Examiner would allow claims 3-10 and 13-20 if they were rewritten in independent form including all of the limitations of the base claim and intervening claims. However, Applicants believe that claims 1-2 and 11-12 are currently patentable, therefore, claims 3-10 and 13-20 are not amended to include the limitations of those independent and intervening claims.

II. Rejection of Claims 1, 2, 11 and 9 under 35 USC § 103

Claims 1-2, 11 and 12 are rejected under 35 USC § 103(a) as being unpatentable over Gabara et al. (US Patent No. 6,107,882) in view of Brunolli (US Patent 6,696,852). Examiner states that Gabara et al. teaches all of the claimed features in Fig. 8A and Brunolli teaches, in Figure 6, a capacitor generating an increased current to increase the output of the driver stage.

Claim 1 recites a method of supplying a driver stage with a current via a positive and a negative current supply connection. Claim 1 also includes limiting the current to a current limit value via a positive and/or negative current supply connection, and temporarily increasing the current flowing via an output of the stage driver in synchronization with the edges of at least one trigger signal of the driver stage, wherein the increased current is provided via a capacitor to increase the output current of the driver stage.

Claim 11 recites a device that outputs a digital signal having a driver stage that receives a supply current via a positive and a negative current connection. The device also has a current increase signal increasing the current flowing via an output of the driver stage in synchronization with the edges of at least one control signal of the driver stage and a capacitor generating an increased current to increase the output current of the driver stage.

As stated in the previous response, Gabara discloses in Figure 8A, a

capacitor C1 that is connected between two resistors R_1 and R_2 and is connected to ground. The combination of the capacitor and the resistors forms a low pass filter where C1 shunts high frequency signals to ground. The combination of the capacitor and the resistors determines an RC time constant. The RC time constant as presented in this device forms a delay between the application of the input signal V_{in-} and V_{in+} forming a feedback signal that is applied to the operational amplifier ("op-amp") 810. Therefore, when an input signal is applied, the feedback signal applied to the op-amp 810 is also dependent upon the signal at the output, therefore the feedback signal may not be synchronized with the input signal. This analysis finds support in the specification which states that "the RC network, which functions as a low pass filter, generates the average dc voltage of the output signal and provides the offset detection signal at the non-inverting input (node 815) of op-amp 810. See col. 7, ll. 10-13.

Brunolli teaches, in Figure 6, parasitic capacitances and inductors. See Col. 4, ll. 9-16. Applicants respectfully submit that the capacitor between lines 102 and 104 is a parasitic capacitance that is inherent to the transmission line and not a capacitor that has been added to increase the current from the amplifier. Further, Brunolli states that "such parasitic devices can be effectively ignored." See Col. 4, ll. 11-16.

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference or references must teach or suggest all of the claim limitations. MPEP § 706.02(j). Contrary to the Examiner's assertion, the combination of Gabara and Brunolli do not teach all of the claim limitations.

At the very least, all of the rejected claims include a capacitor generating an increased current to increase the output current of the driver stage. The references of Gabara and Brunolli, either separately or combined, do not teach or disclose such a capacitor that increases the output current of the driver stage.

Gabara does not increase the current flowing via the output of the driver stage in synchronization with the edge of at least one trigger signal of the driver stage. In fact, the output current of the circuit of Gabara lags the trigger signal since the

capacitor C1 is connected to ground and the current may be increased to ground via the capacitor. As Gabara states in the specification, the RC network generates the average dc voltage of the output signal and applies the average voltage signal to the op-amp 810.

Further, Brunolli teaches away from the use of a capacitor when he states that the parasitic devices can effectively be ignored. Such a statement would lead one to believe that the capacitance would not increase the current of the driver stages and would not perform in the same manner as the capacitor recited in claims 1 and 11. Thus, such a capacitance would not serve to increase the current in the driver stage.

Further, there would be no motivation to combine the reference of Brunolli with the reference of Gabara to increase the current of the driver stage. Brunolli states that under normal operation the parasitic devices may be ignored and as such, the inherent capacitance would not be considered. But even if there was a motivation to combine the references, the combination of Brunolli and Gabara would result in a driver stage that is connected to a transmission line, which in effect would be no different than the result of Gabara, because it is inherent that a driver stage would be connected to a transmission line. Such a transmission line has parasitic capacitances and inductances, and the combination of Gabara and Brunolli, does not teach the claim limitation, "increase of current flowing via an output of the driver stage in synchronization with the edges of at least one trigger signal of the driver stage," found in claims 1 and 11.

Claims 2 and 12 are dependent claims, depending upon independent claims 1 and 11 respectively. As stated above, claims 1 and 11 contain patentable limitations that are not taught or disclosed by Gabara and Brunolli references. Therefore, claims 2 and 12, which depend from patentable claims 1 and 11 respectively, are patentable for at least the same reasons. The Applicants, therefore, respectfully request the examiner to withdraw the rejection to claims 2 and 12.


Applicants also gratefully acknowledge that the Examiner has requested an internal search for the certified copy of the foreign priority document.

V. Conclusion

In view of the response above, Applicants respectfully submit that all of the pending claims are in condition for allowance, as well as the application, and seek an

early allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Stephen Charles Smith', written over a horizontal line.

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